**User's Manual** 



# **Electro-Sealer**

# 7112 FF

**PAXAR Systems Group** 

**Manual Edition 1.1** 

21 June 2002

Manual Part Number 701395

### Contents

Warrant	y Information	1
	Limited Warranty Parts	
	Service	
Safety Ir	nstructions	2
Wa	arning	2
Model 7	112 Flock Feed Heat Sealer	3
Installat	ion	4
General	Description	5
	Main Switch	
	Hold Switch Auto Switch	
	Timer	
	Air Pressure Gauge/Regulator	
	Heat Controls	
	Foot Switch	5
Basic Se	ealing	6
Operatio	on	7
7112 Sei	ries Flock Feed	8
Re	egular Maintenance	
	ouble Shooting	
	aling Problems	
	rt Identification Numbers	
Re	ecommended On-hand Spare Parts	

## **Warranty Information**

#### **Limited Warranty**

PAXAR Systems Group, Division of PAXAR Corporation, extends the following warranties to the original purchaser of a PAXAR Electro-Sealer which has been installed and operated using recommended procedures and operating conditions.

#### Parts

Parts found defective in material or workmanship will be replaced at no charge for a period of six months following the machine's shipment date. Parts damaged by negligence, abuse, or normal wear are not covered. PAXAR Electro-Sealer parts classed as normal wear items include Teflon® tape and rubber rollers.

#### Service

Service to replace defective parts as defined above, shall be provided at no charge for a period of six months following the shipment date.

When ordering machines and supplies in the U.S.A., reference all correspondence to the address below.

PAXAR Corporation One Wilcox Street Sayre, Pa. 18840 Call: 1-800-96PAXAR or (570) 888-6641 Fax: (570) 888-5230

For spare parts, requests for service or technical support

Paxar Service Group

170 Monarch Lane

Miamisburg, OH 45342

- Call: (800) 543-6650
- Fax: (937) 865-2092 for Warranty Parts
- Fax: (937) 865-2707 or (937) 865-6605 for Customer Parts Orders

For parts and service in other countries please contact your local PAXAR supplier.

PAXAR Apparel Identification Systems Group reserves the right to incorporate any modifications or improvements in the machine system and machine specifications which it considers necessary and does not assume any obligation to make said changes in equipment previously sold.

# **Safety Instructions**

### Warning

When using electric tools, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and personal injury. Failure to follow these instructions can result in severe personal injury.

#### READ ALL INSTRUCTIONS CAREFULLY!

The importance of using safe operating procedures can not be over emphasized. The following guidelines will assist you in safe operations.

- 1. Read all warning labels and heed their instructions during installation and operation.
- 2. Use proper line voltage (110 VAC) and air pressure (80/psi air pressure) as outlined.
- 3. Keep hands clear of pinch points during operation and do not touch any of the heated plates while loading or unloading garments.
- 4. Do not remove any guards. Guards must be in place during operation.
- 5. Use only an authorized person to service machine and be sure all power sources (air and electrical) are disconnected during service.
- 6. Do not attempt to circumvent safety features.

Adherence to these instructions will prevent injury to personnel and with care and normal maintenance the equipment will provide many years of service.

# Model 7112 Flock Feed Heat Sealer

The 7112 FF Sealer has been designed to automate the feeding of labels, flocks and stackable embroideries. Precision and versatility have been the keynotes of its design.

Precision in that each item can be repeatedly fed to 1/32 of an inch in position. Versatility in that the system can feed one item at a time or two at once. This provides the means by with a garment that needs two labels can be labeled with one stroke of the press. Thus providing twice the production capability for the cycle time.

A further option that is available is the reciprocal base system, which will automatically position garment items under the press head. This feature makes it possible to load and unload garments prior to actual sealing.

The installation is covered in the following section.

# Installation

Your Electro-Sealer can be mounted on a table or stand of your choice, either by bolting through the same holes as used to attach the shipping base, or be attaching the shipping base itself to the table.

A MINIMUM OF 80 PSI OF AIR is required to operate the machine. This should be attached to the 1/4 NPT inlet of the air filter at the rear of the machine cabinet. The air gauge at the rear of the cabinet should show 80 PSI; if not, the line pressure is not correct.

The vacuum pump with which your Electro-Sealer is equipped is shipped in a separate container, complete with hose and fitting. Attach and tighten the hose to its fitting, which is located under the rear corner of the machine cabinet. The pump is turned on by a switch located on its power cord.

Model number, serial number, and ELECTRICAL REQUIREMENTS are listed on a plate attached to the side of the cabinet at the rear.

Prior to shipment, the machine has been completely checked out in actual operation, including an accurate mechanical leveling of the base in relation to the electrodes.

Heat, dwell time, and pressure are the basic fundamentals that determine the results obtainable on a thermo-plastic sealing application, such as Electro-Seal labeling. It is impossible with the variety of fabric materials and constructions, as well as design of garments, to establish any one setting that will give the most desirable results under all circumstances, but settings will be suggested upon request and submission of an application description.

### **General Description**

#### **Main Switch**

This turns the machine on and off.

#### **Hold Switch**

This switch locks out the timer; the head will come down but the timer will not work. The head stays down as long as the foot pedal is depressed. THIS IS A MAINTENANCE FUNCTION used when changing electrodes to insure that they are well seated and parallel to the base when tightened.

#### **Auto Switch**

Turning this switch to the "on" position will activate the feed system, transporting a label from the hopper to underneath the electrode, ready for sealing.

#### Timer

The dwell time can be set by turning the pointer in the center of the dial face to the desired time.

#### Air Pressure Gauge/Regulator

Adjustment of air pressure is accomplished by turning the knob under the air pressure gauge. To raise the pressure, turn the knob clockwise; to lower, turn it counter-clockwise. When lowering the pressure, allow the needle on the gauge to drop below the desired pressure, then raise it back to that pressure. The reason for this is that there is a lag when bleeding air out of the system.

#### **Heat Controls**

Electrode and plate head can be set independently. The correct temperature will be indicated on the control's face. If the control fails to reach this, refer to the heat control pages provided.

#### **Foot Switch**

Depression of the foot switch starts the unit cycling for the time indicated on the cycle timer. The foot switch should be kept in the depressed state until the press cycles out and the seal is completed. As the press starts to rise, the food pedal can be released, allowing the machine to re-set automatically, feeding a label from the hopper to the electrode, ready for sealing. Removal of pressure from the foot switch at any time after the start will immediately break the cycle and return the press to neutral.

# **Basic Sealing**

Heat, dwell time, and pressure are the basic fundamentals that determine the results obtainable on a thermo-plastic sealing application, such as Electro-Seal labeling. It is impossible with the variety of fabric materials and constructions, as well as design of garments, to establish any one setting that will give the most desirable results under all circumstances. ON THE BASIS OF EXTENSIVE SUCCESSFUL LAUNDRY TESTS, ON AVERAGE WEIGHT GOODS INVOLVING BOTH WOVEN AND KNIT MATERIALS, WE WOULD SUGGEST THE FOLLOWING STARTING POINTS FOR A NEW ELECTRO-SEAL USER.

An air pressure setting of 60 pounds (30 pounds for thin, delicate knitwear) which is determined by the air control knob and indicated by the gauge above it on the left side of the machine. A cycle time of  $1 \frac{1}{2} - 2$  seconds for average weight fabrics and labels has proven adequate for laundry proof attachment. On heavier goods and/or large heavy weight labels, longer times may be required.

Setting the plate heat at 375°F has proven to be a good starting point. On heavy weight denims, it may be necessary to increase this to 400°F. Setting the electrode heat will depend on the type of adhesive being used.

Remember...these are only basics, and these settings can vary. Seal a label to a sample. As your Electro-Sealer times out and releases itself, immediately remove the fabric and lift the corner of the label. If the adhesive has stuck to both the fabric and the label, the sealing can be judged successful. If all the adhesive is on the fabric and none on the label, decrease the plate heat or cut back the time. Adhesives tend to flow toward the heat.

If the adhesive has <u>not</u> transferred to the fabric, you have three adjustments that can be made:

#### A. Increase the plate heat

- **B.** Decrease the electrode heat; thermoplastics tend to flow towards higher heat when melting.
- C. Increase the cycle time to allow complete melting.

If the adhesive has all transferred to the fabric with none left on the label, you may:

#### A. Reduce the plate heat

#### B. Decrease the cycle time

You must judge for yourself, depending on the fabric's sensitivity to heat and time, which of the adjustments will be best.

# Operation

To put your Electro-Sealer into operation, turn on the main switch. Set the plate and electrode heat controls to the desired temperature. Turn on the vacuum pump by using the switch located on the power cord for the pump.

Turn on the auto switch. This will cause the vacuum arm to pull a label from the hopper and move it into position until the operator depresses the foot pedal, sealing the label onto the garment. The pedal must be held down until the press cycles out and the seal is completed. As the press starts to rise from the garment, the foot pedal can be released, which resets the vacuum arm to feed another label. In doing this, the machine automatically feeds another label while the operator is removing the garment and inserting another.

When the label has been fed into position for sealing, it is important that the label is totally under the electrode so that the pressure is exerted on the adhesive coated label.

The position of the vacuum arm is always the same and so to change the position of the label relative to the electrode, you must change the position where the hopper places the label on the vacuum arm. To move the label left or right, the hopper is moved by loosening the lower hopper bracket, shifting the hopper in the direction desired, then tightening the bracket in position.

## 7112 Series Flock Feed

#### **Regular Maintenance**

- 1. Remove accumulated moisture form the air filter by opening the bleed valve located at the base of the filter bowl.
- 2. To check the sealing area for an out of parallel condition: with the heat on, set the timer for one (1) second or less; place a light colored cloth or paper on the base plate; put a piece of carbon paper, carbon down on the cloth, and run the machine through a cycle. The carbon paper will leave a picture of the sealing area on the cloth. THE COLOR SHOULD BE EVEN. A dark area indicates more pressure in that area and should be corrected.

If the out of level condition is either in the front or back, the base plate can be tilted. Loosen the bolt to lower the front and raise the back. Tighten to raise the front, lower the back.

If it is side to side, it must be corrected with shims placed under the base plate insulator block.

Light or dark spots within the sealing area will indicate that either of the plates may be warped. This would require surface grinding by a machine shop. (Make certain that the vacuum arm does not extend lower than the electrode.)

- 3. Lubricate the head assembly guide pin monthly with white grease.
- 4. Lubricate the feed arm shaft and rack with light oil, a FEW drops weekly.
- 5. The Teflon® composition covers on the electrode and base plate must be changed as frequency of use dictates. They provide a non-stick surface, which can be wiped clean with a cloth.
- 6. Check the vacuum filters monthly and clean or replace as required.

Symptoms	<b>Probable Cause</b>	<b>Corrective Action</b>
Timer does not move but	Hold Switch turned on.	Hold Switch should be turned off.
press operates	Defective timer.	Replace timer.
No heat / no movements	Bad fuse.	Check and / or replace fuse.
	No power.	Check power to its source.
Timer moves / heat works	Lack of air pressure	Check main airline.
No movement	Binding cylinder	Disconnect main air line, attempt to move cylinder
	Bad 4-way valve	by hand, loosen air line from 4-way valve to TOP of cylinder; operate machine. If not, replace valve. If air escapes, tighten and check line to the BOTTOM of cylinder.
No heat / no indicator light, no meter indicator	No power	Check wiring
No heat / no indicator light. Meter reads +50	Bad probe	Replace probe.
Heat out of control	Unit malfunction.	Replace Unit
	Probe shorted.	Replace probe.
Heat working, meter not in the green band	Error in manual reset control	Resent according to Athens Booklet.
Air leak at 4-way valve	Internal leak in cylinder	Replace or rebuild cylinder
exhaust	Jammed 4-way valve	Replace 4-way valve
Timer will not reset	Reset switch not functioning	Adjust or replace
Vacuum arm stays in the down position	<ul> <li>a) Foot pedal not held down until timer hits zero</li> <li>b) Hold Switch turned on</li> <li>c) Timer malfunction</li> <li>d) 4-way valve jammed</li> </ul>	<ul> <li>a) Hold down until timer hits zero</li> <li>b) Hold Switch must be off during normal operation.</li> <li>c) Replace timer</li> <li>d) Replace 4-way valve</li> </ul>
Vacuum arm stays in up position after cycle	Reset Switch not functioning	Replace or adjust
Vacuum arm has no tension	Broken tension spring Broken gear teeth	Replace
Vacuum arm moves too fast or too slow	Flow controls out of adjustment	Adjust for smooth motion, not too fast
Vacuum arm does not go to ready position when auto switch is activated	Relay not working Switch not working	Replace

### Trouble Shooting

Will not pull label out of hopper	Vacuum pump off. Poor vacuum. Too much weight in hopper. Vacuum holes in the arm not covered by label	Check and adjust
Labels feed on bias	Poor vacuum	Increase tension on bleed valve.
	Hopper our of adjustment	Adjust.
Feeds two labels at one time	Too much vacuum	Decrease tension on bleed valve.
		Thumb stack before loading into hopper.

### Sealing Problems

Symptoms	Probable Cause	<b>Corrective Action</b>
Uneven sealing of label.	Machine out of level; plates not parallel.	Check and Adjust
	Hitting a seam or button with electrode.	Relocate the label or use smallest electrode possible.
	Uneven thickness in label.	Use silicone rubber to level.
	Cardboard in garment.	
Shining of sealing area.	Heat and / or pressure	Reduce heat and / or dissipate pressure using silicone rubber.
		Shorten time.
		Needle board.
Crushing of fabrics.	Too much air pressure.	Reduce or dissipate.
	High pile or napped material.	Use an electrode that matches the item being sealed.

### **Part Identification Numbers**

FIND	PART	DESCRIPTION	QTY
NUMBER	NUMBER		
1	200060	CONTROL HEAT ATHENA 1810	2
2	200074	CORD LINE 15 AMP	1
3	200093	FUSE HOLDER 30 AMP	1
4	200110	FUSE 10 AMP	1
5	200178	HEATER 3 INCH	2
6	200182	HEATER 4 INCH	2
7	200375	SOCKET RELAY	4
8	200394	RELAY TIME DELAY / CPDO	2
9	200407	RELAY (5X827)	2
10	200568	SWITCH KNIFE / LOAD	1
11	200638	SWITCH LIMIT / VACUUM / SENSING	4
12	200657	SWITCH PADDLE LEFT & RIGHT	2
13	200712	SWITCH MAIN DPST	1
14	200746	SWITCH MAIN SPST HOLD / AUTO / VAC	3
15	200750	TERM STRIP 6 POSITIONS	3
16	921102	THERMOCOUPLE, T/C PROBE	2
17	205152	TIMER 30 SEC	1
18	200981	BAR GUIDE PIN 7111 SHORT	1
19	201109	BLOCK INSULATIN 1-1/2"	1
20	201113	BLOCK INSULATING 1"	1
21	201429	BRACKET PADDLE SWITCH LEFT & RIGHT	2
22	201541	BUSING BLOCK GUIDE PIN	1
23	201575	CAB 7112 REAR COVER W/ HINGE	1
24	201734	CARTRIDGE HOLDER 3"	1
25	201753	CASTING BASE STD	1
26	201908	COLMN SUPPORT 15"	1
27	202179	HOPPER ASSEMBLY (STANDARD)	1
28	202510	PIN GUIDE 8-1/2	1
29	202578	PLATE 3 HOLE HEAD GLASS	2
30	202597	PLATE 4 HOLE HEAD GLASS	1
31	202600	PLATE 7 HOLE HEAD STEEL	1
32	202686	PLATE BASE 3"	1
33	202850	PLYWOOD BASE BOARD TABLE	1
34	202968	RING SMALL PIVOT BLOCK	4
35	202972	RING SMALL TOP PLATE	1

36	202987	RING SMALL BOTTOM PLATE	1
37	203000	RING SMALL SELF LEVEL	1
38	203655	WASHER RUBBER SILICONE	1
39	203759	CYLINDER MAIN 24 X 4 (175 X 4)	1
40	203848	FILTER REGULATOR W/ BOWL GUARD	1
41	203867	GUAGE AIR PRESSURE 1-1/2"	1
42	203922	REGULATOR (PANEL MTG-NO GUAGE)	1
43	203937	TUBES SILICONE (FT)	4
44	203980	VALVE 4-WAY	1
45	204041	VALVE VACUUM BLEED (GAST#AA207)	2
46	205294	FILTER VACUUM PLAIN	2
47	205326	VALVE VAC MEAD 4-WAY (7112FF)	1
48	205350	ARM FEED 7112FF	1
49	205364	ARM FEED SHAFT 7112FF	1
50	205410	PLATE RELAY MOUNTING 7112FF	1
51	205434	BLOCK SLIDE 1-1/2" 7112FF	2
52	205449	BLOCK GUIDER SLIDE 7112FF 1.50	2
53	205468	SENSOR SWITCH PLUG 7112FF	4
54	205740	ELECTRO W/ VACUUM UP TO 4"	1
55	205769	SWITCH SAFETY GUIDE PIN	1
56	205896	BRACKET GUIDE PIN SAFETY	1
57	205909	BLCOK ROTARY ACTUATOR MTG 7112	2
58	206403	GUAGE VAC NON PANEL MTG THREAD	1
59	206545	BLOCK LABEL VACUUM BRASS 7112	1
60	207035	CAB 7112 FRONT PANEL / NEW STYLE	1
61	207041	CAB 7112FF WRAPAROUND W/ CHANGE	1
62	207092	CASTING OVERARM 7112FF	1
63	207317	CLOCK HOPPER MTG 7112FF	1
64	207321	PLATE HOPPER MTG / 7112FF	1
65	207336	SUPPORT CABINET BACK (7112FF)	1
66	207355	SWITCH KNIFE / VAC	1
67	207567	PLATE ASSY FEED ARM 7112FF	1
68	207588	BRACKET LIMIT SW MTG 7112FF	2
69	207707	VALVE FLOW CTR 10-32 X 5/32 TB	2
70	207745	SUPPORT CABINET FRONT 7112FF	1
71	208035	ACTUATOR VACUUM SWITCH 7112	1
72	208251	BRACKET H CYL STABILIZER 7112FF	1
73	208779	RELAY DINRAIL 6" MTG	1
74	209365	HOPPER BACK STANDARD (7112FF)	1
75	209401	PLATE TIMER MOUNTING	1

76	209416	SCREW B/P ADJUSTING	1
77	209420	VALVE 4-WAY (H110-4E1-PSL L1)	3
78	209435	VALVE3-WAY (H110-E1-PSL L1)	1
79	209440	MANIFOLD (H110-M4F)	1
80	209539	CYLINDER H BLOCK (HUMP 7D-2)	1
81	210875	BARE BOARD 2HND SW CNTL 7112X	1
82	214987	PUMP VACUUM (VG15-00-00)	1
83	214996	BLOCK MTG VAC PUMP 214987	1
84	215005	ACTUATOR POTARY (1817-0700)	1
85	215038	KIT H BLOCK ES TYPE	1
86	203547	STOP WAISTBAND SET 1 LH, 1 RH	1
87	214185	VACUUM CUP VP10LBS	1
88	215233	TH1000 SHIPPING KIT	1
89	204920	MISC. HARDWARE	1
		NOTE:	

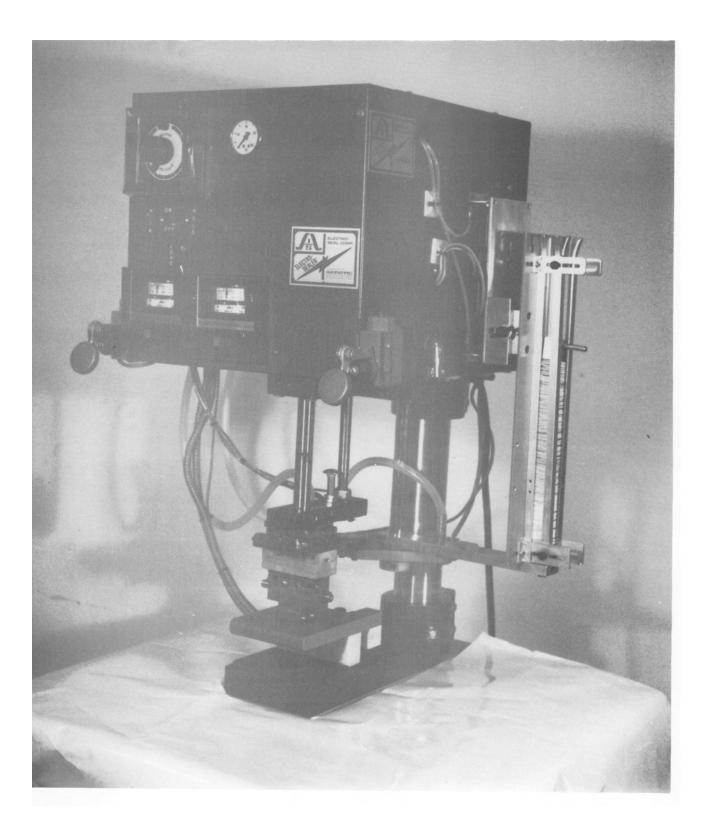
THE USE OF THE 5-DIGIT PART NUMBER WILL SPEED YOUR ORDER.

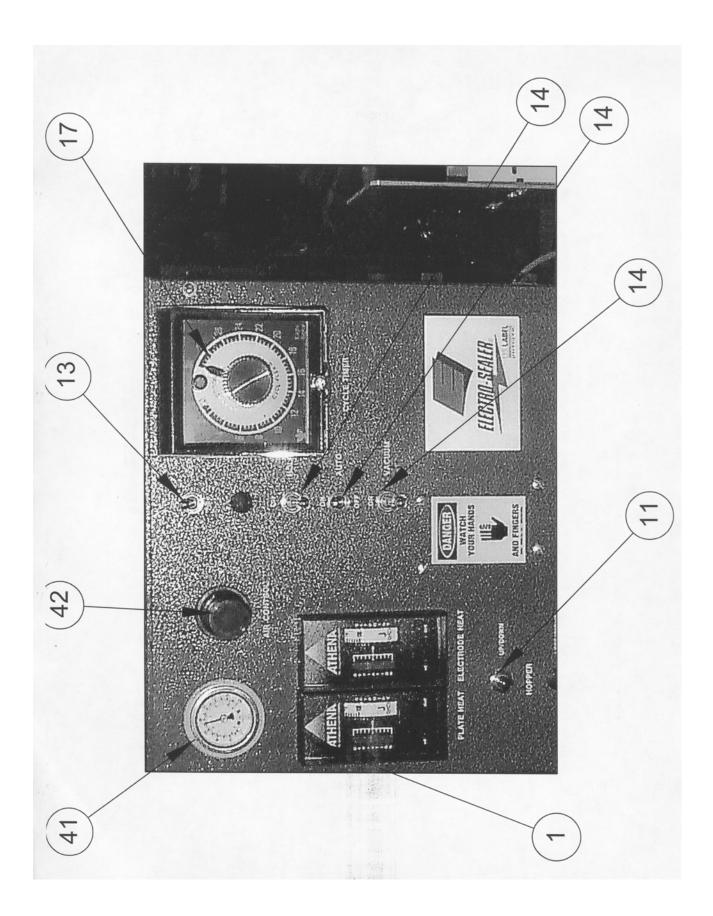
### **Recommended On-hand Spare Parts**

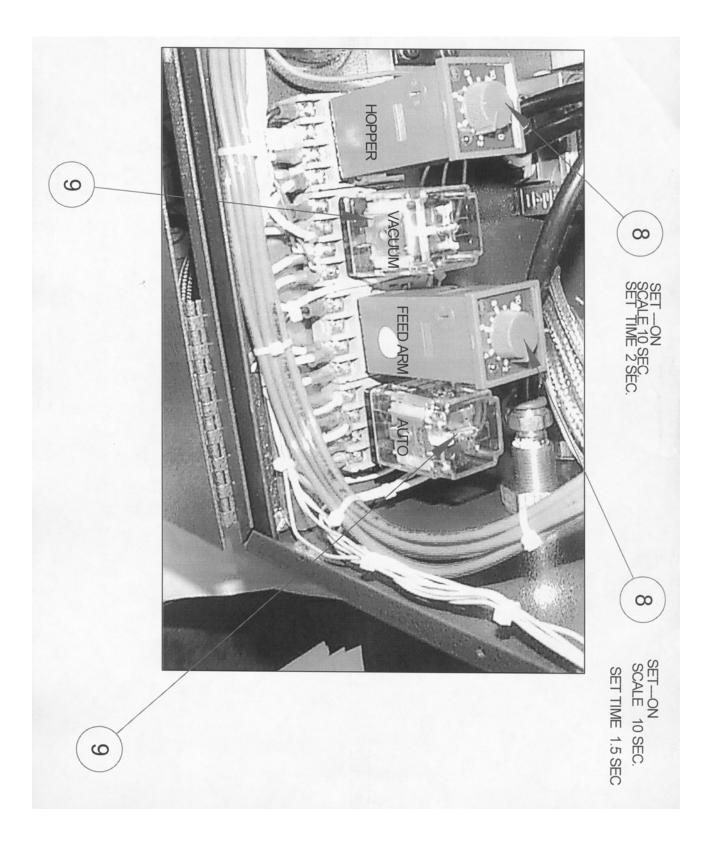
PART	DESCRIPTION	QTY
NUMBER		
200060	CONTROL HEAT ATHENA 1810	2
200178	HEATER 3" 300 WATTS	5
200182	HEATER 4" 300 WATTS	5
200394	RELAY TIME DELAY / DPDT	2
200407	REALY (5X827)	3
200638	SWITCH LIMIT / VACUUM / SENSING	5
200765	THERMOCOUPLE, T/C PROBE	5
205152	TIMER 30 SEC	1
210930	FUSE 15 AMP	5
215428	RELAY SM DPDS (6C897)	2
204130	TEFLON TEMP TAPE 4"	2
205487	RUBBER SILICONE SPONGE 1/16"	20
203937	TUBES SILICONE (FT)	6
203980	VALVE 4-WAY	2
209420	VALVE 4-WAY (H110-4E1-PSL L1)	4
209435	VALVE 3-WAY (H110-E1-PSL L1)	2
214185	CUP VACUUM VP 10LBS	4

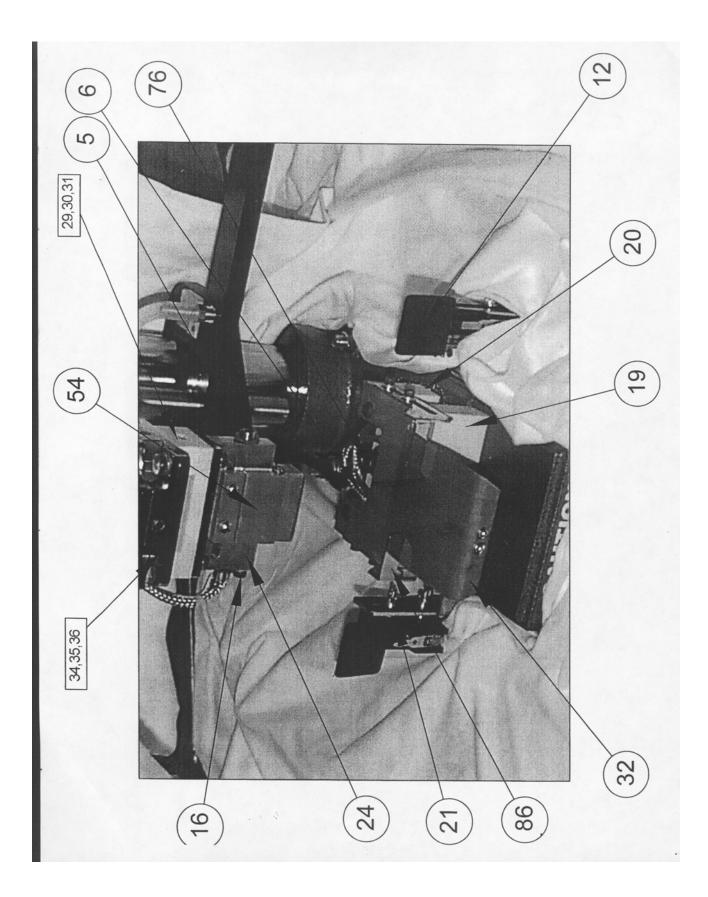
#### NOTE:

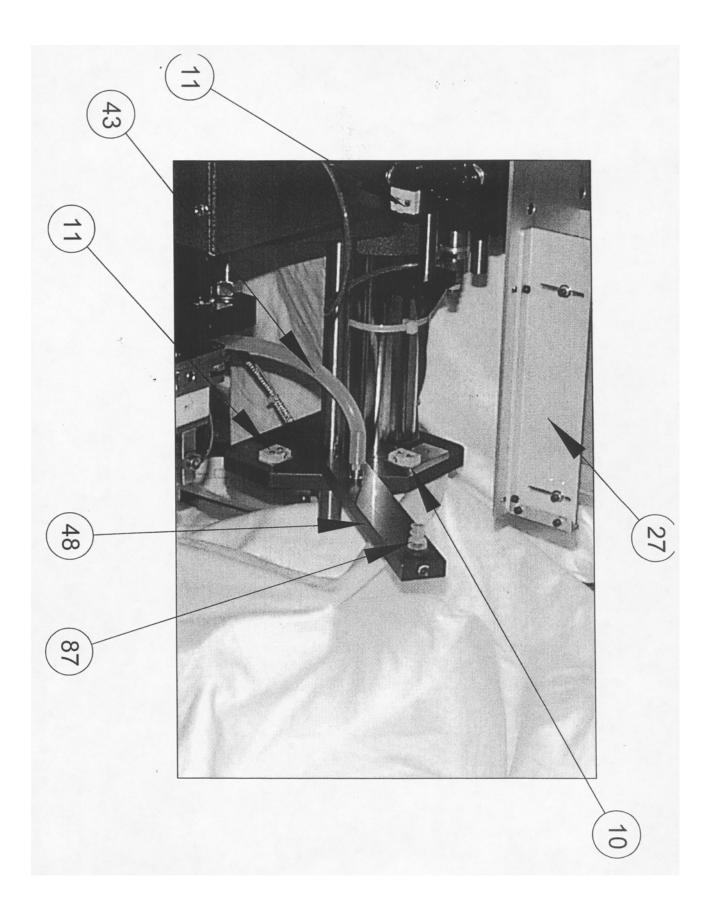
THE USE OF THE 5-DIGIT PART NUMBER WILL SPEED YOUR ORDER.











This page left blank intentionally.